

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of the claims in the application:

Listing of Claims:

1. (previously presented) A method comprising:
forming a porous interlayer dielectric;
etching a via and a trench in the porous interlayer dielectric; and
exposing the dielectric to a silane coupling reagent comprising an oligomer of an alkoxysilane, to form a continuous layer over the surface of the interlayer dielectric.
2. (original) The method of claim 1, wherein the interlayer dielectric is an oxide.
- 3-4. (cancelled)
5. (original) The method of claim 1, wherein the interlayer dielectric is a polymer.
- 6-8. (cancelled)
9. (original) The method of claim 1, wherein the continuous layer comprises SiO₂.
10. (cancelled)
11. (currently amended) A method comprising:
etching a via and a trench in a dielectric, wherein the dielectric has a plurality of pores;
exposing the dielectric to an oxidant to prepare the surface of the dielectric;
treating the surface of the dielectric with a silane coupling reagent after exposing the dielectric to the oxidant to seal the pores exposed on the surface of the dielectric, the silane coupling reagent having an oligomeric structure; and
forming a conductive layer on the surface of the dielectric.

12. (original) The method of claim 11, wherein the dielectric is an oxide.
13. (original) The method of claim 12, wherein the silane coupling reagent comprises an alkoxysilane.
14. (previously presented) The method of claim 13, wherein the alkoxysilane is methoxypropyltrimethoxysilane.
15. (original) The method of claim 11, wherein the dielectric is a polymer.
16. (original) The method of claim 15, wherein the silane coupling reagent comprises a alkoxyvinylsilane.
17. (original) The method of claim 16, wherein the alkoxyvinylsilane is vinyltriethoxysilane.
18. (cancelled).
19. (currently amended) The method of claim ~~18~~ 11, wherein the oligomeric structure is a dimer.
20. (currently amended) The method of claim ~~18~~ 11, wherein the oligomeric structure is designed to fill a pore with one molecule.
21. (original) The method of claim 11, wherein treating comprises bubble vapor deposition of the silane coupling reagent.
22. (original) The method of claim 21, wherein the bubble-vapor deposition carrier gas comprises Nitrogen (N₂).

23. (original) The method of claim 21, wherein the bubble-vapor deposition carrier gas comprises Argon.
24. (original) The method of claim 11, wherein treating comprises spin-coating the silane coupling reagent onto the dielectric.
25. (previously presented) A method comprising:
forming a dielectric having a pore; and
exposing the surface of the dielectric to a silane coupling reagent, wherein the silane coupling reagent comprises an oligomeric structure designed to fill the pore with one molecule.
26. (original) The method of claim 25, wherein the dielectric comprises an oxide.
27. (previously presented) The method of claim 26, wherein the oligomeric structure comprises monomers of a trialkoxysilane.
28. (original) The method of claim 25, wherein the dielectric is a polymer.
29. (previously presented) The method of claim 28, wherein the oligomeric structure comprises monomers of trialkoxyvinylsilane.
30. (original) The method of claim 29, further comprising: exposing the dielectric to an oxidant to prepare the surface of the dielectric.
31. (original) The method of claim 30, wherein the oxidant comprises peroxide.
32. (original) The method of claim 25, wherein the silane coupling reagent comprises an oligomeric structure.

33. (original) The method of claim 25, wherein the continuous film comprises an SiO₂ film covalently linked to the porous dielectric.

34. (original) The method of claim 25, wherein a plurality of Si-OCH₃ groups condense on the porous dielectric.